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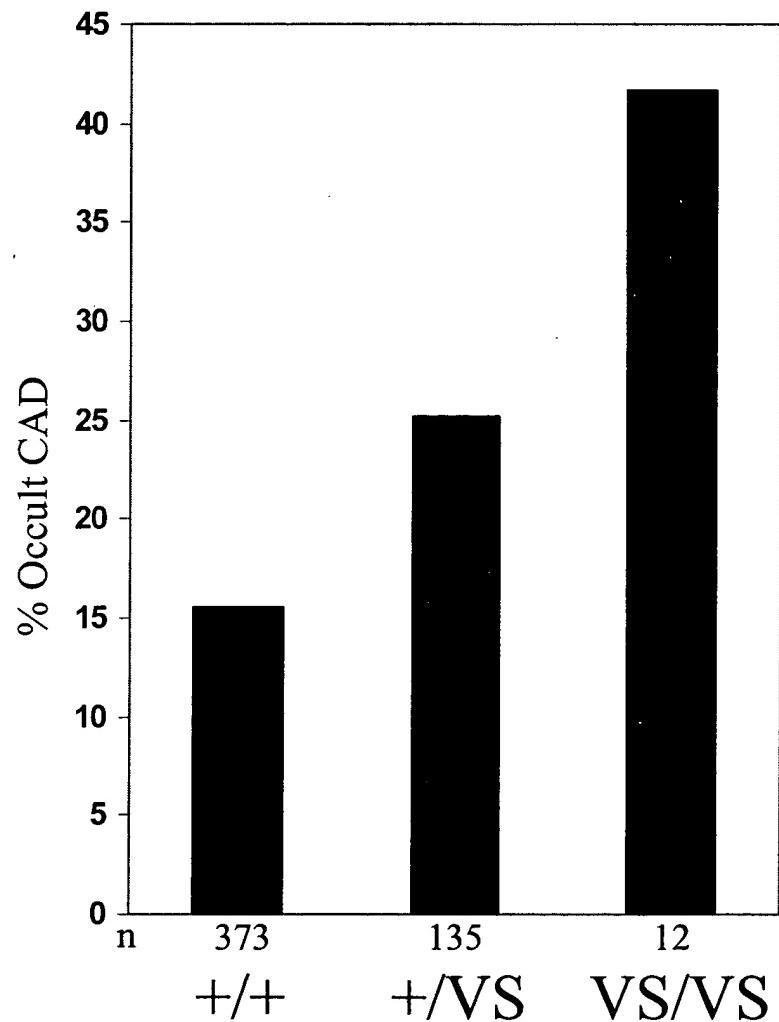
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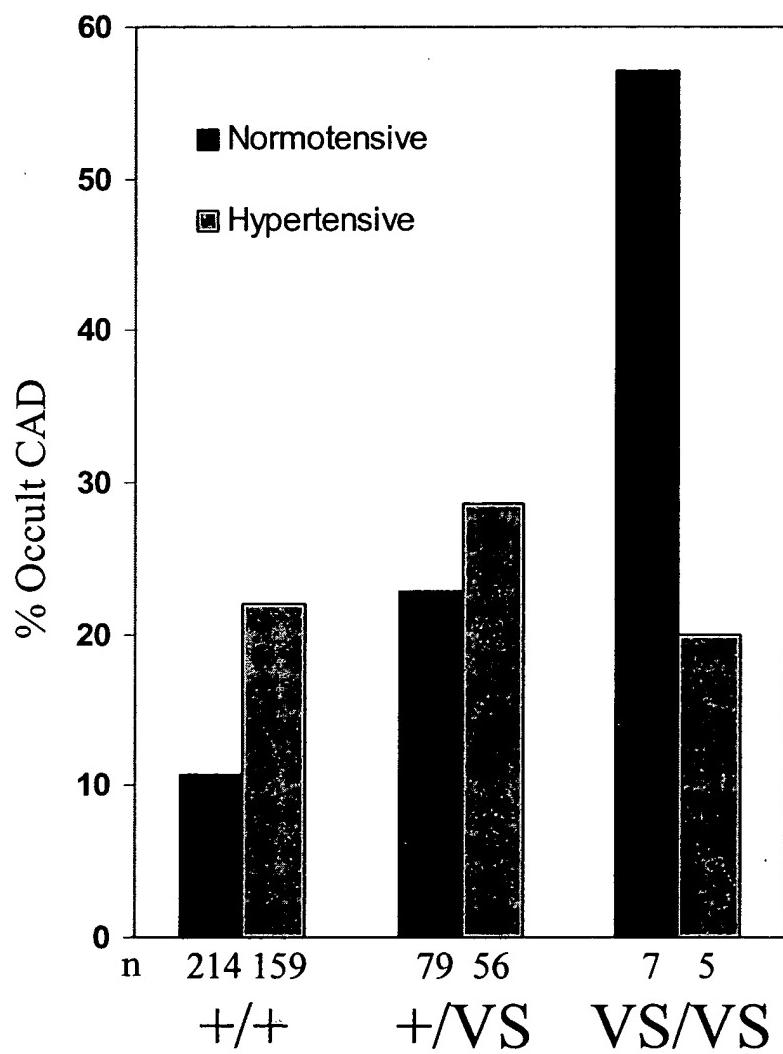
KLOTHO ALLELE STATUS AND OCCULT ATHEROSCLEROSIS

Fig 1



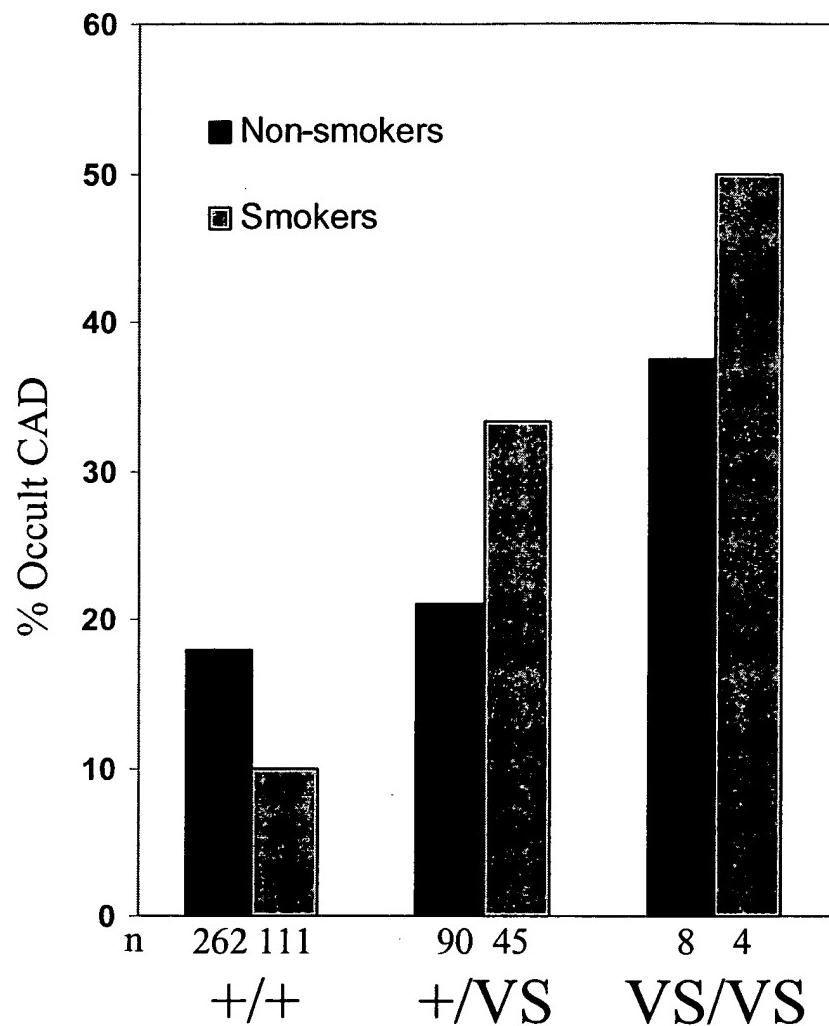
KLOTHO ALLELE STATUS AND OCCULT ATHEROSCLEROSIS

Fig 2



KLOTHO ALLELE STATUS AND OCCULT ATHEROSCLEROSIS

Fig 3



KLOTHO ALLELE STATUS AND OCCULT ATHEROSCLEROSIS

Fig 4

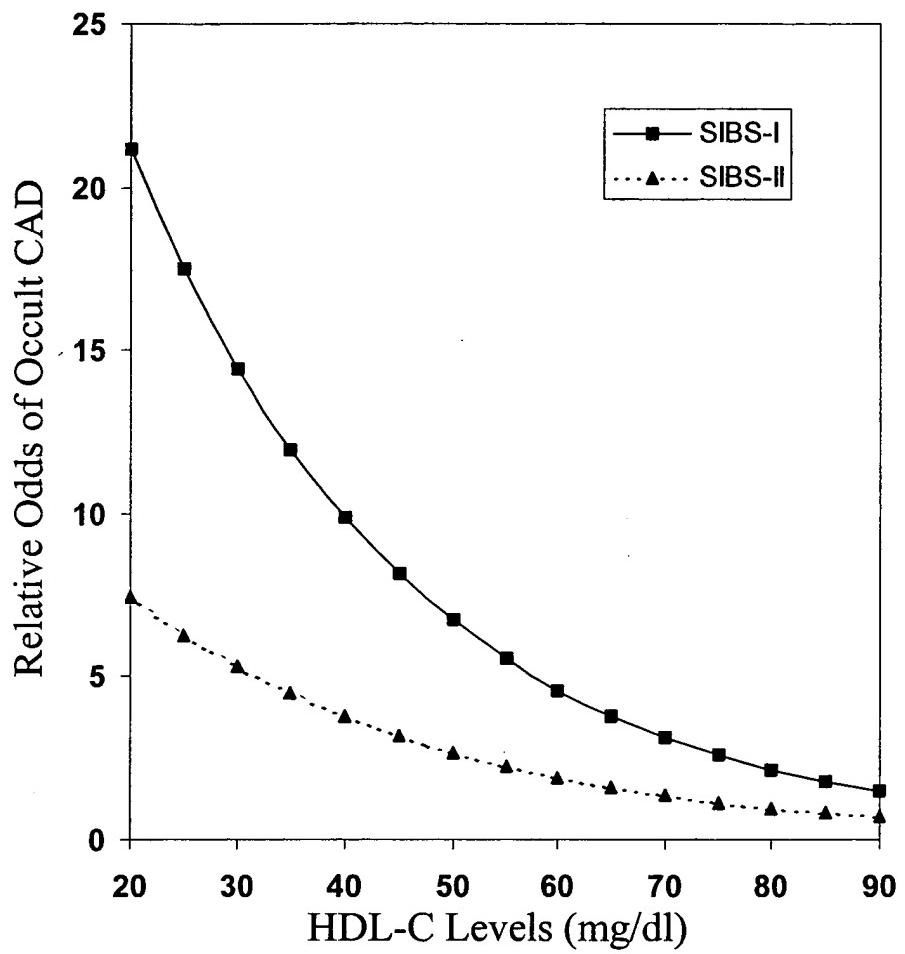


Fig 5 (Seq ID Nos. 1 and 2)

Amino Acid Sequence of Secreted and Membrane-Bound Forms of KLOTHO

Secreted Form (klothoΔ)

SEQ ID NO: 1

MPASAPRRPRPPQSLLLLLVLLGLGGRRLRAEPGDGAQTWARFSRPPAPEAAGLFQGTFPDGFLWAVG
SAAYQTEGGWQQHGKGASIWDTFTHHPLAPPGDSRNASLPLGAPSPLQPATGDVASDSYNNVFRDTEALR
ELGVTHYRFSISWARVLPNGSAGVPNREGLRYYRLLERLRELGVQPVVTLYHWDLPQRLQDAYGGWANR
ALADHFRDYAELCFRHFGGQVKYWITIDNPYVVAWHGYATGRLAPGIRGSRQLGYLVAHNLLLHAKVWH
LYNTSFRPTQGGQVSIALSSHWINPERRTDHSIKECQKSLDFVLGFAKPVFIDGDYPESMKNNLSSILP
DFTESEKKFIKGTAFFALCFGPTLSFQLDPHMFRQLESPINLRQLLSWIDLEFNHPQIFIVENGWFVS
GTTKRDDAKYMYYLKKFIMETLKAIKLDGVDVIGYTAWSLMDGFEWRGYSIRRGLFYVDFLSQDKMLLP
KSSALFYQKLIKEKNGFPPLPENQPLEGTFPCDFAWGVVDNYIQVSQLTKPISSLTKPYH

Membrane-bound form (full-length klotho)

SEQ ID NO: 2

MPASAPRRPRPPQSLLLLLVLLGLGGRRLRAEPGDGAQTWARFSRPPAPEAAGLFQGTFPDGFLWAVG
SAAYQTEGGWQQHGKGASIWDTFTHHPLAPPGDSRNASLPLGAPSPLQPATGDVASDSYNNVFRDTEALR
ELGVTHYRFSISWARVLPNGSAGVPNREGLRYYRLLERLRELGVQPVVTLYHWDLPQRLQDAYGGWANR
ALADHFRDYAELCFRHFGGQVKYWITIDNPYVVAWHGYATGRLAPGIRGSRQLGYLVAHNLLLHAKVWH
LYNTSFRPTQGGQVSIALSSHWINPERRTDHSIKECQKSLDFVLGFAKPVFIDGDYPESMKNNLSSILP
DFTESEKKFIKGTAFFALCFGPTLSFQLDPHMFRQLESPINLRQLLSWIDLEFNHPQIFIVENGWFVS
GTTKRDDAKYMYYLKKFIMETLKAIKLDGVDVIGYTAWSLMDGFEWRGYSIRRGLFYVDFLSQDKMLLP
KSSALFYQKLIKEKNGFPPLPENQPLEGTFPCDFAWGVVDNYIQVDTTLSQFTDLNVYLWDVHHSKRLIKV
DGVVTKRKSYCVDFAAIQPQIALLQEMHVTHFRFSLDALILPLGNQSQVNHTILQYYRCMASELVRVN
ITPVVALWQPMAPNQGLPRLARQGAWENPYTALAFAYARLCFQELGHHVKLWITMNEPYTRNMTYSAG
HNLLKAHALAWHVYNEKFRHAQNGKISIALQADWIEPACPFSQKDKEVAERVLEFDIGWLAEPIFGSGDY
PWVMRDWLNRQNNFLPYFTEDEKKLIQGTFDFLASHYTTILVDSEKEDPIKYNDYLEVQEMTDITWLN
SPSQVAVVPWGLRKVLNWLFKYGDLPMYIISNGIDDGLHAEDDQLRVYYMQNYINEALKAHILDGINLC
GYFAYSFNDRTAPRFGLYRYAADQFEPKASMKHYRKIIDSNFGPGPETLERFCPEEFTVCTECSSFFHTRK
SLLAFIAFLFFASIISLSSLIFYYSKKGRRSYK

F 352 is mutated to V

C 370 is mutated to S

Fig 6 (Seq ID Nos 3 and 4)

Amino Acid Sequences of Secreted and Membrane-Bound KL-VS Allelic Variation

SEQ ID NO: 3

Secreted Form (klotho)

MPASAPRRPRPPPQSLSLLVLLGLGGRRRLRAEPGDGAQTWARFSRPPAPEAAGLFQGTFPDGFLWAVG
SAAYQTEGGWQQHGKGASIWDTFTHPLAPPGDSRNASLPLGAPSPLQPATGDVASDSYNNVFRDTEALR
ELGVTHYRFSISWARVLPNGSAGVPNREGLRYYRLLERLRELGVQPVVTLYHWDLPQRLQDAYGGWANR
ALADHFRDYAELCFRHFGGVKYWITIDNPYVVAWHGYATGRLAPGIRGSPRLGYLVAHNLLLHAKVWH
LYNTSFRPTQGGQVSIALSSHWINPDRMTDHSIKECQKSLDFVLGFAKPVFIDGDPESMKNNLSSILP
DVTESEKKFIKGTAFFALSFGPTLSFQLLDPHMKFRQLESNLRQLLSWIDLEFNHPQIFIVENGWFVS
GTTKRDDAKYMMYLKKFIMETLKAIKLDGVDVIGYTAWSLMDGFEWRGYSIRRGIFYVDLSQLDKMLLP
KSSALFYQKLIKEKNGFPPLPENQPLEGTFPCDFAWGVVDNYIQVDTTLSQFTDNLNVLWDVHHSKRLIKV

SEQ ID NO:4

Membrane-bound form (full-length klotho)

MPASAPRRPRPPPQSLSLLVLLGLGGRRRLRAEPGDGAQTWARFSRPPAPEAAGLFQGTFPDGFLWAVG
SAAYQTEGGWQQHGKGASIWDTFTHPLAPPGDSRNASLPLGAPSPLQPATGDVASDSYNNVFRDTEALR
ELGVTHYRFSISWARVLPNGSAGVPNREGLRYYRLLERLRELGVQPVVTLYHWDLPQRLQDAYGGWANR
ALADHFRDYAELCFRHFGGVKYWITIDNPYVVAWHGYATGRLAPGIRGSPRLGYLVAHNLLLHAKVWH
LYNTSFRPTQGGQVSIALSSHWINPDRMTDHSIKECQKSLDFVLGFAKPVFIDGDPESMKNNLSSILP
DVTESEKKFIKGTAFFALSFGPTLSFQLLDPHMKFRQLESNLRQLLSWIDLEFNHPQIFIVENGWFVS
GTTKRDDAKYMMYLKKFIMETLKAIKLDGVDVIGYTAWSLMDGFEWRGYSIRRGIFYVDLSQLDKMLLP
KSSALFYQKLIKEKNGFPPLPENQPLEGTFPCDFAWGVVDNYIQVDTTLSQFTDNLNVLWDVHHSKRLIKV
DGVVTKRKSYCVDFAAIQPOQIALLQEMHVTFRFSLDWALILPLGNQSQVNHTILQYYRCMASELVRVN
ITPVVALWQPMAPNQGLPRLARQGAWENPYTALAFAEYARLCFQELGHHVKLWITMNEPYTRNMTYSAG
HNLLKAHALAWHVYNEKFRHAQNGKISIALQADWIEPACPFSQKDKEVAERVLEFDIGWLAEPIFGSGDY
PWVMRDWLNRQNNFLLPYFTEDEKLIQGTFDFLASHYTTILVDSEKEDPIKYNDYLEVQEMTDITWLN
SPSQVAVVPWGLRKVLNWLFKYGDLPMYIISNGIDDGLHAEDDQLRVYYMQNYINEALKAHILDGINLC
GYFAYSFNDRTAPRFGLYRYAADQFEPKASMKHYRKIIDSNGFPGPETLERFCPEEFTVCTECSSFHTRK
SLLAFIAFLFFASIISLSLIFYYSKKGRRSYK

F 352 is mutated to V

C 370 is mutated to S

Figure 7

sense primer, 5'-AGGCTCATGCCAAAGTCTGG

Figure 8

anti-sense primer, 5'-GTTCCATGATGAACCTTTGAGG